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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/941,832 10/01/97 CHACON

G 80000054

LM02/0510
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EXAMINER

JONES, H

ART UNIT

PAPER NUMBER

2763

DATE MAILED:

05/10/00

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/941,832

Applicant(s)

Chacon

Examiner

Hugh Jones

Group Art Unit

2763

☒ Responsive to communication(s) filed on Mar 31, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 6, 8, 11, 12, 17, 19, 22, 29, 31, and 34 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 6, 8, 11, 12, 17, 19, 22, 29, 31, and 34 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

1. Examiner conducted a phone interview with Applicant's representative on or about the third week of April. Applicant's representative inquired as to the status of the pending claims. The Examiner indicated that indication of allowable material was being changed (due to reconsideration of claims and newly obtained art). Therefore, this action is nonfinal.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

3. A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 6, 8, 11-12, 17, 19, 22, 29, 31 and 34 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 11-16 of copending Application No. 08/941,825. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

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Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 6, 11-12, 17, 22, 29 and 34 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Umeda et al. (U. S. Patent 5,544,348 - of record) or Seppanen (IEEE, 1993 - of record) or Wiwakanond et al. (of record) or Corbett et al. (of record) or Tantry et al. or Natarajan or Parad or Korncoff et al. or Weaver et al. or Lee et al..**

7. Applicant is disclosing a virtual Kanban system, wherein said Kanban system is a function of processes, and a means for simulating said system.

8. Umeda et al. teaches simulation of a Kanban system. See entire disclosure and particularly: abstract; figs. 1-15; col. 1, lines 42-55; col. 3, lines 48-67; col. 3, lines 1-48; col. 10 lines 1-67; col. 18, lines 10-67.

9. Seppanen teaches: "Kanban Simulator using Siman and Lotus 1-2-3." See particularly: abstract; and pp. 838-844.

10. Wiwakanond et al. teach "Simulation of Electronics Manufacturing Systems with Two-Card Kanban." See particularly: entire disclosure.

11. Corbett et al. disclose a review of papers concerning simulations of scheduling systems, including Kanban systems. See particularly: abstract; sections 2-3, and list of references.

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12. Tantry et al. disclose "*Object-oriented architecture for factory floor management.*" The abstract discloses:

"An object-oriented architecture for a factory floor management software system is described in which factory floor entities are modelled as factory objects within a relational database. The architecture includes X-terminal or bar code devices for facilitating user interaction with the system via one or more of the factory floor entities; Application Engines for processing user interaction of events and generating application service requests; and Application servers for processing the application service requests and generating database service requests in response. These database service requests are utilized to retrieve, manipulate and update data stored within the relational database. Communication Managers are employed for coordinating interprocess communication between the Application Engines, the Application Servers, and the Database Servers. Each of these major components are distributed among computer resources that are networked across the factory floor."

See, also: fig. 2-3, 5-10; col. 1, line 38 to col. 2, line 46; col. 5, line 45 to col. 9, line 30; Table 1 (col. 20).

13. Natarajan discloses (abstract):

"A conceptual decision analysis tool for production dispatch process is used to evaluate alternatives during a production process and generate an optimum path to follow after a process disruption at a given production center in order to maintain the promised due date. The objective is not only to decide on a dispatch rule to be followed for an order under progress at a given work center in the event of a disruption, but also to re-analyze dispatch rules for existing orders waiting in line to be processed at that work center. In the event of production stoppage or disruption, this system analyzes the revised sequence for orders in progress as well as passes the recommended results to a planning system so that this information can be used to re-plan the release sequence of orders waiting for release. This provides a feedback control mechanism and an element of artificial intelligence."

See, also: fig. 2-3; col. 2, line 26 to col. 3, line 10.

14. Parad discloses (abstract):

"A method for continuous real-time management of heterogeneous interdependent resources is described. The method preferably comprises using multiple distributed resource

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engines to maintain timely and precise schedules, and action controls, and identifying and responding to rapidly changing conditions in accord with predetermined requirements, relationships, and constraints. Each resource engine continuously adjusts schedules in response to changing status, resource requirements, relationships and constraints. Each action control maintains an ordered list of conditions requiring action, determines the best action in each case, and generates appropriate responses. Preferably methods for continuous operation include inquiring about status concurrent with scheduling activity and recognizing the effects of time passage on the condition of schedules."

See, also: fig. 1-2, 6, 8-9, 11-12, 17-19; col. 2, line 1 to col. 5, line 64.

15. Korncoff et al. discloses (abstract):

"An exception processing system for use in conjunction with manufacturing facilities, and automated manufacturing cells in particular is provided. The exception processor is adapted to receive alarms from a cell controller indicating that an unplanned event or exception has occurred in cell operation. The exception processor implements an automated recovery procedure that responds to the alarm, corrects the exception, and returns the cell to normal operation. The exception processor also statistically monitors cell operation in order to avoid exceptions before they occur, and to provide better control over cell processes."

See, also: fig. 1-2, 5, 7, 12, col. 1, lines 24-46; col. 2, line 1 to col. 4, line 23.

16. Weaver et al. discloses (abstract):

"This invention is a look-ahead method for determining optimum production schedules for each production step based on factory-wide monitoring of in-process part queues at all potential production bottlenecks. For each product having associated therewith a throughput bottleneck, a maximum queue quantity Q.sub.MAX and a minimum queue Q.sub.MIN quantity are assigned. When a machine completes a lot of a particular product at a production step P that proceeds the bottleneck step B, the look-ahead method is initiated. The queue at step P is searched and the next lot to be processed is selected. If that lot is a product for which Q.sub.MAX and Q.sub.MIN values have been assigned at step B, then the queue quantity at step B is determined. If, on one hand, the queue quantity at step B is less than Q.sub.MAX, or between Q.sub.MAX and Q.sub.MIN and the queue quantity is climbing upward from a sub-Q.sub.MIN value and has not yet exceeded its Q.sub.MAX value, then the lot is processed without further analysis. If, on the other hand, the queue quantity at step B is greater than Q.sub.MAX, or between Q.sub.MAX and Q.sub.MIN and the queue quantity is descending from a quantity greater than its Q.sub.MAX and has not yet fallen below its Q.sub.MIN value, then that product has a set flag status associated therewith,

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and the lot will not be processed until after all other lots which have a clear flag status are processed."

See, also: fig. 3; col. 1, line 16 to col. 2, line 26.

17. Lee et al. discloses a lookahead production planning system. The abstract discloses:

"An integrated manufacturing system operative for managing the distribution to a factory floor as well as throughout a factory of the information that is necessary to effectuate the production of products on the factory floor. The information required for this purpose encompasses, but is not necessarily limited to, both the design information which is generated within the engineering enterprise and the scheduling information which is generated within the manufacturing resource planning system. This information consisting of design and manufacturing data pertaining to the product to be produced is in turn stored in a central repository for all shared information from whence as needed it is capable of being distributed in a logical and efficient fashion through operation of the integrated manufacturing system to the factory floor as well as throughout the factory so as to thereby enable the product to be produced on the factory floor in a most timely and most cost-effective manner."

See, also: fig. 1, 3-4, 6, 15-16, 18-20, 23-28; col. 3, line 60 to col. 6, line 27.

Allowable Subject Matter

18. Claims 8, 19 and 31 are allowed over the prior art.

19. The following is an examiner's statement of reasons for allowance: Applicant has amended the claims as requested by Examiner.

20. The novel features which are claimed and have not been found in the prior art include:

- two sets of data (see line 7 of claim 6, for example) and the further development of the invention which depends on the two sets: claims 6, 8, 17, 19, 29, 31;
- determining potential problem areas (see last limitation of claim 8): claims 8, 19, 31.

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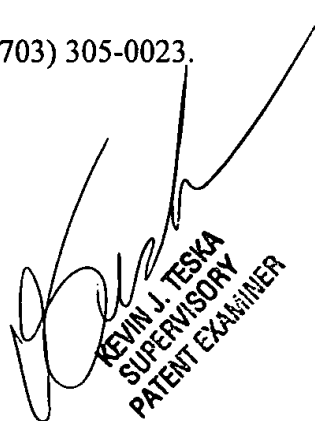
Response to Arguments

21. Applicant's arguments filed 3/31/00 have been fully considered but they are not persuasive.

Applicant is disclosing a virtual Kanban system, wherein said Kanban system is a function of processes, and a means for simulating said system. Examiner has attempted to point out to Applicant that any disclosure regarding simulation of a Kanban system would read on the independent claims. As previously noted, there exists, in the prior art, teachings regarding the use of barcodes on items in production lines which are scanned at various workstations and which are used to control the operation of production equipment. ***Such art has now been asserted against the claims***. In response to Applicant's arguments concerning anticipation, ***feedback is inherent in Kanban systems*** - this is what is meant by and is the motivation for using Kanban systems.

Furthermore, Applicant ignores the ability of a skilled artisan who has access to the 102 teaching.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Hugh Jones whose telephone number is (703) 305-0023.



KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER

Dr. Hugh Jones

May 7, 2000